



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS-R5-ES-2019-0056; FF09E22000 FXES11130900000 201]

RIN 1018–BD65

### Endangered and Threatened Wildlife and Plants; Reclassifying Furbish’s Lousewort (*Pedicularis furbishiae*) from Endangered to Threatened Status With a Section 4(d) Rule

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), are reclassifying (downlisting) Furbish’s lousewort (*Pedicularis furbishiae*) from an endangered species to a threatened species under the Endangered Species Act of 1973, as amended (Act), and we finalize a rule under section 4(d) of the Act to promote the conservation of Furbish’s lousewort. This information is based on a thorough review of the best available scientific and commercial information, which indicates the threats to the species have been reduced to the point that the species no longer meets the definition of an endangered species under the Act.

**DATES:** This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** This final rule, supporting documents we used in preparing this rule, and public comments we received on the proposed rule are available on the internet at <https://www.regulations.gov> at Docket No. FWS-R5-ES-2019-0056.

**FOR FURTHER INFORMATION CONTACT:** Amanda Cross, Project Leader, Maine Ecological Services Field Office, 306 Hatchery Road, East Orland, ME 04431; telephone 207–902–1567. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay

services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

## **SUPPLEMENTARY INFORMATION:**

### **Supporting Documents**

A species status assessment (SSA) team prepared an SSA report for Furbish's lousewort. The SSA team was composed of biologists from the Service and the State of Maine Natural Areas Program. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species (Service 2020, entire).

The SSA report can be found at <https://www.regulations.gov> under Docket No. FWS-R5-ES-2019-0056 and on the FWS website at: <https://www.fws.gov/species/st-johns-river-lousewort-pedicularis-furbishiae>.

### **Previous Federal Actions**

Furbish's lousewort was listed as an endangered species on April 26, 1978 (43 FR 17910). We completed a recovery plan in 1983 (Service 1983) and revised it in 1991 (Service 1991). The revised recovery plan presented updated life-history and population information, and updated information on the threats to the species. A second revised recovery plan was signed on September 26, 2019, and on February 21, 2019, a 5-year status review was completed (Service 2019b) and concluded that Furbish's lousewort should be downlisted to a threatened species under the Act.

On January 15, 2021, we proposed to reclassify Furbish's lousewort from an endangered species to a threatened species with a rule issued under section 4(d) of the Act to provide for the conservation of the species, i.e., a "4(d) rule" (86 FR 3976).

### **Summary of Changes from the Proposed Rule**

In this rule, we make certain nonsubstantive, editorial changes to some text that we presented in the proposed rule, and we include a minor amount of new information (e.g., some

updated population information showing improved conditions and new conservation actions) that we received or that became available since the proposed rule published. However, this new information did not change our analysis, rationales, or determination for either the proposed reclassification of Furbish's lousewort to a threatened species or the proposed 4(d) rule for the species.

## **I. Reclassification Determination**

### **Background**

A thorough review of Furbish's lousewort is presented in the SSA report (Service 2020), found at <https://www.regulations.gov> under Docket FWS-R5-ES-2019-0056, which is briefly summarized here.

#### *Species Information*

Furbish's lousewort was first named and described in 1882 (Watson 1882, entire) and is recognized as a valid taxon. A thorough review of the taxonomy, life history, and ecology of Furbish's lousewort is presented in the SSA report.

Furbish's lousewort is an herbaceous perennial plant that occurs on the intermittently flooded, ice-scoured banks of the St. John River. It is endemic to Maine with a few, small subpopulations in northwestern New Brunswick, Canada. The population of Furbish's lousewort comprises 20 subpopulations associated with suitable habitat that occurs along portions of a 225-kilometer (140-mile) section of the St. John River. The plant is recognized early in the growing season by a basal rosette of fern-like leaves. By mid-summer, mature plants produce one or more flowering stems that grow to about 50 to 80 centimeters (20 to 30 inches) in height. The stems have alternate, widely spaced, fern-like leaves along their length and are topped by a tight cluster (inflorescence) of small, yellow, tube-like flowers that bloom only a few at a time. Furbish's lousewort has two distinct growth stages: vegetative (immature, nonflowering) individuals that grow as a basal rosette of leaves and reproductive (flowering) plants.

Furbish's lousewort does not spread clonally, and plants are established exclusively by sexual reproduction and seed (Stirrett 1980, p. 23; Menges 1990, p. 53). Flowering occurs at a minimum of 3 years once plants reach a certain size leaf area. Reproductive plants emerge in May and produce an average of 2 to 3 flowering stems; each stem has one or more inflorescences, and each inflorescence has up to 25 flowers. Flowers bloom several at a time from about mid-July to the end of August (Stirrett 1980, p. 24; Menges et al. 1986, p. 1169). Furbish's lousewort is pollinated by a single species of bumble bee, the half-black bumble bee (*Bombus vagans*) (Macior 1978, entire). About 50 percent of flowers produce egg-shaped seed capsules that ripen in late-September after which the tiny (1 millimeter) seeds are dropped (Menges et al. 1986, p. 1169; Gawler 1983, p. 27; Gawler et al. 1986, entire). Seeds lack mechanisms for wind or animal dispersal, and most drop near the parent plant. Each mature plant tends to form a colony around itself. During spring floods, it is conceivable that some seeds may disperse down-river (Stirrett 1980, pp. 26–27; Menges 1990, p. 53). The seeds germinate in moist, cool microhabitats having minimal herbaceous or woody plant competition or leaf litter, such as moss-covered soil or parts of the riverbank that are constantly wet. Furbish's lousewort lacks seed dormancy; seedlings result only from the previous year's reproduction (Menges 1990, p. 54). Seedlings emerge in June through August and have two true leaves during their first growing season (Gawler et al. 1987, entire). Like most species of *Pedicularis*, seedlings of Furbish's lousewort are obligate hemiparasites and obtain part of their nutrition from root attachments with a perennial host plant. The species seems to be a host-generalist, perhaps relying on nitrogen-fixing host plants in the mineral-poor soil in which it grows (Macior 1980, entire). The lifespan of adult flowering plants is uncertain.

## **Regulatory and Analytical Framework**

### *Regulatory Framework*

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an

endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for threatened and endangered species. In 2019, jointly with the National Marine Fisheries Service, the Service issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019). On the same day the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 FR 44753; August 27, 2019).

The Act defines an "endangered species" as a species that is in danger of extinction throughout all or a significant portion of its range, and a "threatened species" as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects. We consider these same five factors in downlisting a species from endangered to threatened.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the species’ expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species—such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as we can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

#### *Analytical Framework*

The SSA report documents the results of our comprehensive biological status review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent a decision by the Service on whether Furbish's lousewort should be reclassified under the Act. It does, however, provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

To assess Furbish's lousewort viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochastic events (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of

the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

### **Summary of Biological Status and Threats**

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability. In addition, the SSA (Service 2020, entire) and 5-year review (Service 2019a, entire) document our comprehensive biological status review for the species, including an assessment of the potential threats to the species.

To assess the resiliency of Furbish's lousewort, we reviewed the abundance of flowering and nonflowering individuals and colonization of populations through seed dispersal mechanisms; the dependency of populations on periodic ice scour and flooding; and the effects of climate change, and development. To assess the redundancy of Furbish's lousewort, we evaluated how the distribution and biological status of subpopulations contribute to the species' ability to withstand catastrophic events. Specifically, we examined how climate change and current and future development are likely to affect the number, sizes, and distribution of populations (Service 2020, pp. 38–39; 42–48; 52–59). To assess representation, we evaluated the environmental diversity within and among subpopulations.

### *Summary of Current Condition*

Furbish's lousewort functions as a metapopulation. Unlike a continuous population, a metapopulation has spatially discrete local subpopulations, in which migration between subpopulations is significantly restricted. In the SSA report, we define subpopulations as separated by a mile or more of unsuitable habitat based primarily on the limitations of the

species' pollinator, the half-black bumblebee. *Bombus* species typically exhibit foraging distances of less than 1 kilometer (0.62 miles) from their nesting sites (Knight et al. 2005, p. 1816; Wolf and Moritz 2008, p. 422). Based on this criterion, we identify 15 subpopulations of Furbish's lousewort in Maine and 5 in New Brunswick, Canada, that form the basis for our analysis of the current condition of the species. For our analysis, we first qualitatively assessed the subpopulations as "good," "fair," or "poor," including the subpopulation's attributes: abundance, density, and current status as compared to the site history. We designated sites where Furbish's lousewort is currently thought to be absent (locally extirpated) as "very poor."

Next, we evaluated each subpopulation according to three habitat criteria: the amount of potential habitat, the condition of the forested riparian buffer, and the prevalence of shoreline erosion. We selected these habitat criteria to describe habitat quality because of their influence on the species' resource needs (Service 2020, p. 11, table 2). We assigned a score of 3 (good), 2 (fair), 1 (poor), or 0 (very poor) to each subpopulation and habitat criterion (Service 2020, pp. 31–32). The rankings presented in the SSA for the 15 subpopulations in Maine are 2 good, 2 fair to good, 3 fair, and 8 poor. Since the SSA was published, the Maine Natural Areas Program (MNAP) updated these rankings for the same subpopulations to 3 good, 3 fair to good, 1 fair, 1 poor to fair, and 7 poor (MNAP 2021, pp. 14–15). On average, the upriver subpopulations rank higher than the downriver subpopulations because of the high-quality habitat and low pressures from development. Six of the 15 subpopulations in Maine are currently extirpated (all downriver subpopulations). In New Brunswick, all five subpopulations rank as poor (Service 2020, pp. 33–36), and there are some differences between habitat conditions upriver and downriver. Upriver habitat is more extensive and occurs in a managed industrial forest. Downriver habitats (including New Brunswick) are smaller and more fragmented.

### *Risk Factors*

Based on the life-history and habitat needs of Furbish's lousewort, and in consultation with species' experts, as well as experts in botany, ice scour and flooding of the St. John River,

and landscape ecology, we identify the potential stressors (negative influences), the contributing sources of those stressors, and how conservation measures to address those stressors are likely to affect the species' current condition and viability (Service 2020, pp. 21–31). We evaluate how these stressors may be currently affecting the species and whether, and to what extent, they would affect the species in the future (Service 2020, pp. 40–57). The stressors most likely to affect the viability of Furbish's lousewort are: (1) Development resulting in habitat loss, erosion, and fragmentation; and (2) climate change that causes the current trends of warmer winters that affect the ice dynamics, flooding, and overall disturbance regime of the St. John River.

Historical land use patterns influence Furbish's lousewort habitat today; the land use upriver of the town of Allagash is undeveloped, while the downriver landscapes in Maine and farther downriver in New Brunswick are dominated by agriculture and small villages. Changes in land use on the banks of the St. John River in downriver areas have occurred through the clearing of vegetation, especially trees, for agriculture, individual house lots, and roads. These land use changes within the St. John River valley may have negatively affected habitat of some Furbish's lousewort subpopulations through removal or reduction of forested riparian buffers and subsequent loss of shade critical to the species' growth and reproduction. Areas cleared of forest, and impermeable surfaces associated with development, have led to the erosion and subsidence of the unconsolidated glacial till soils, and caused slumping and erosion of Furbish's lousewort habitat. Modest predicted trends of future development for the St. John River Valley are described in the SSA Report (Service 2020, p. 47). Future development will likely occur in the center of larger towns and expand into some areas currently in agricultural land use; this activity could cause slumping and erosion in Furbish's lousewort habitat.

Furbish's lousewort is identified as one of Maine's plant species most vulnerable to climate change (Jacobson et al. 2009, p. 33). The species depends on periodic disturbance of the riverbank from ice scour that is not too frequent or too infrequent and not too severe. Climate change is expected to affect the ice regime of northern rivers, including the St. John, by

increasing the frequency and severity of ice scour and flood events (Service 2020, p. 23). River ice models for the St. John River demonstrate that key variables influencing the frequency and severity of ice scour, jamming, and flooding are caused by midwinter temperatures above freezing, midwinter precipitation in the form of rain, and increasing river flows (Beltaos and Prowse 2009, pp. 134–137). Beltaos (2002, entire) developed a hydroclimatic analysis for the upper St. John River using long-term climate and flow records. He documented that a small rise in winter air temperatures over the past 80 years has resulted in a substantial increase in the number of mild winter days and the amount of winter rainfall, which were previously rare occurrences in this region. These two factors augment river flows, causing increased breakup of ice cover, increased peak flows in late winter, and a higher frequency of spring ice jams and flooding (Service 2020, p. 24). Increasing summer temperatures may also affect Furbish's lousewort. The climate envelope of the species has not been described, but its closest genetic relatives are all arctic plants that require cool, moist environments. We are uncertain about the maximum summer temperatures and moisture deficits that Furbish's lousewort can withstand (Service 2020, p. 27).

Several conservation actions are in place and may reduce some of the stressors to Furbish's lousewort or provide habitat protection (see *Conservation Efforts for Furbish's lousewort*, for more information).

#### *Summary of Future Conditions Analysis*

We assess two timeframes for characterizing the condition of Furbish's lousewort in the future. We selected the years 2030 and 2060 as a period for which we can reasonably project effects of the stressors and plausible conservation efforts. Climate change information for these timeframes is based on the available information contained in climate predicting models provided through the U.S. Geological Survey (USGS) Climate Change Viewer, Summary of the Upper St. John River Watershed, Aroostook County, Maine (USGS 2017a, b, entire). The timeframes of 2030 and 2060 capture approximately one to two, and four to five, generations of

Furbish's lousewort, respectively. Development information for this timeframe is available in municipal comprehensive plans (Town of Fort Kent 2012, entire) and The University of Maine Sustainability Solutions Initiative (Service 2020, p. 41).

For each of the two timeframes, 2030 and 2060, we developed three future scenarios: continuation, best case, and a worst case. We provide a range of reasonable, plausible effects for development and climate change. For climate change scenarios, we use data from representative concentration pathways (RCPs) of greenhouse gas (GHG) concentration trajectories adopted by the International Panel on Climate Change (IPCC). The three RCPs selected, RCP 2.6, RCP 4.5, and RCP 8.5, reflect a wide range of possible changes in future anthropogenic GHG emissions. RCP 2.6 is a scenario that assumes that global GHG emissions have peaked and will decline after 2020. The continuation scenario assumes moderate increases in GHG emissions (RCP 4.5), moderate increases in development downriver, and conservation measures continuing or being reduced slightly. The best-case scenario assumes low GHG emissions (RCP 2.6), conservation measures remaining in place, and no further development downriver. The worst-case scenario assumes high GHG emissions and moderate increases of GHG emissions into the future (RCP 8.5), modest levels of development, and reduced conservation measures (Service 2020, p. 48).

All future predictions are uncertain; therefore, we qualified them using relative terms of likelihood that had been adopted as terminology specified by the IPCC (2014). Based on the future analysis, we predict that by 2030 there is a higher likelihood that, in all three scenarios, the metapopulation of the Furbish's lousewort will continue to decline due to local extirpations of downriver subpopulations. By 2060, we predict that it is likely that the overall viability of the metapopulation will be greatly reduced from current conditions and a few subpopulations will persist upriver in Maine. We predict that there is a high likelihood that in both the continuation and worst-case scenarios the metapopulation will no longer be viable; it will be extirpated throughout most of its range; and the few plants that remain would be concentrated at upriver sites.

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. Our assessment of the current and future conditions encompasses and incorporates the threats individually and cumulatively. Our current and future condition assessment is iterative because it accumulates and evaluates the effects of all the factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

The SSA report contains a more detailed discussion on our evaluation of the biological status of the species and the influences that may affect its continued existence. Our conclusions are based upon the best available scientific and commercial data, including the judgments of the species' experts and peer reviewers. See the SSA report for a complete list of the species' experts and peer reviewers and their affiliations.

#### *Existing Regulatory Mechanisms*

Section 4(b)(1)(A) of the Act requires that the Service take into account "those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species." In relation to Factor D under the Act, we interpret this language to require the Service to consider relevant Federal, State, and Tribal laws, regulations, and other such binding legal mechanisms that may ameliorate or exacerbate any of the threats we describe in threat analyses under the other four factors or otherwise enhance the species' conservation. We give the strongest weight to statutes and their implementing regulations and to management direction that stems from those laws and regulations.

Municipal shoreline zoning in Maine now provides partial protection of Furbish's lousewort habitat (Service 2020, appendix 1). As established by State law in 2013, the shoreline zone extends to 250 feet from the high-water line all along the St. John River. Zoning prohibits clear-cutting within 50 feet of the river; openings located greater than 50 feet from the river (or 75 feet from the river for a few subpopulations in organized towns) are restricted to a maximum of 0.3 acres, and no more than 40 percent of the forest in the 250-foot zone can be harvested in a 10-year period (Maine Department of Environmental Protection Mandatory Shoreland Zoning, title 38, chapter 3, sections 435–449). Organized towns have the option to designate lousewort habitats as resource protection subdistricts, which would provide more stringent measures. Currently, no towns have designated any resource protection subdistricts for the lousewort (Service 2020, p. 28).

The New Brunswick Clean Water Act provides shoreline protections that convey a benefit to the Furbish's lousewort in Canada. The New Brunswick Department of Environmental and Local Government acts as the regulatory entity responsible for issuing all watercourse alteration permits. Guidelines for implementing the regulations specify that no heavy equipment may be operated within 15 meters of the bank of a watercourse, no ground disturbance may occur within 30 meters of a watercourse, and only 30 percent of the total merchantable trees may be removed from a 30-meter buffer zone every 10 years. All activities taking place within 30 meters of a watercourse that is either one hectare or larger in area or that involve the removal, deposit, or disturbance of the water, soil, or vegetation require a permit (Service 2020, p. 29).

Several parcels that support Furbish's lousewort have permanent protection. Since 2001, the New England Forestry Foundation has had a 754,673-acre conservation easement on lands along the St. John River where Furbish's lousewort occurs. The easement protects approximately 6.2 percent of the total population in Maine and restricts development rights in perpetuity. In 2019, The Maine Chapter of The Nature Conservancy purchased several areas of the St. John River corridor. The Maine Bureau of Parks and Lands (Bureau) owns a large unit in the town of

Allagash that provides several hundred feet of Furbish's lousewort habitat, approximately 2 percent of the population in Maine. The Bureau's integrated resource policy requires that the Bureau promote the conservation of federally listed species. One of the five subpopulations in New Brunswick is permanently protected (Service 2020, pp. 29–30).

The Furbish's lousewort was listed on Canada's Schedule 1 of the Species at Risk Act (SARA) in June 2003 and was initially designated as endangered by the Committee on the Status for Endangered Wildlife in Canada (COSEWIC) in 1980. With this proclamation, protection and recovery measures were developed and implemented.

The Furbish's lousewort is protected by New Brunswick's Endangered Species Act. Under this Act, it is prohibited to kill, harm, or collect this species or disturb its habitat on Federal lands (Service New Brunswick 1996, entire).

As discussed, Furbish's lousewort and its habitat receives some protection from regulatory mechanisms in both the United States and Canada. In the United States, the State of Maine and municipal regulations provide partial protection for shorefronts, which includes protections of riparian habitats where the lousewort could be located. These State and municipal regulations are enforced through local and State ordinances. They were not designed to protect Furbish's lousewort from direct take, and as such, the species is not regulated from direct take on private lands in Maine. In Canada, where populations are at historic lows, New Brunswick regulates heavy equipment use and buffer zones and prohibits take of Furbish's lousewort through the New Brunswick Endangered Species Act. Furbish's lousewort is further regulated as a Schedule 1 species at risk under SARA. Collectively these regulations provide protections in Canada for the Furbish's lousewort and its habitat.

#### *Conservation Efforts for Furbish's lousewort*

Since Furbish's lousewort was listed in 1978, various conservation and recovery actions have improved the status of the species. For example:

- In 1986, Congress deauthorized the construction of the Dickey-Lincoln hydropower project (Pub. L. 99–662), which was the primary threat to the species at the time of listing (Service 2020, p. 27).

- St. John River Resource Protection Plan (Plan): Industrial forest landowners voluntarily signed the Plan beginning in 1982, with revisions in 1992, 2002, 2012, and 2022 (Land Use Planning Commission 2022, entire). The intent of the Plan is to protect the natural values and traditional recreational uses of the river. The primary value of the Plan to the conservation of Furbish’s lousewort is that it does not allow commercial and residential development, subdivisions, water impoundments, and utility projects on land along the St. John River owned by signatory landowners.

- Since 2009, the Service’s Partners for Fish and Wildlife Program has partnered with a small business owner in Aroostook County, Maine, to restore riparian forests that are potential habitat for Furbish’s lousewort. Through this partnership, they have collaborated with 37 landowners encompassing 40 parcels. To date, \$110,000 has been invested, and trees were planted along 4.6 miles of river, creating 55.2 acres of forested riparian habitat (Service 2020, pp. 30–31).

- At the end of the 2021 growing season, seeds (as flowering scapes) were collected by MNAP and the Service from plants at three sites to send to researchers in New Brunswick, Canada. These researchers hope to propagate the species in anticipation of possible reintroductions. A total of 36 flowering scapes were collected, each with anywhere from one dozen to several dozen flowering capsules (MNAP 2021, p. 17).

- The Furbish’s lousewort occurs only on private lands in Canada. Therefore, private landowner stewardship is vitally important. Several nonprofit organizations collaborated to create the George Stirret Nature Preserve, a protected area around one population of lousewort. The Nature Trust of New Brunswick contacted private landowners surrounding the remaining

areas where Furbish's lousewort grows and developed 15 voluntary private landowner stewardship agreements to encourage and support stewardship practices (Dowding 2020).

These recovery actions and other supporting data that we analyzed indicate that some of the threats identified at the time of listing have been ameliorated or reduced in areas occupied by Furbish's lousewort, and that the species' status has improved, primarily due to the congressional deauthorization of the Dickey-Lincoln hydropower project. However, more recent threats associated with climate change may impede the plant's ability to recover.

## **Recovery Criteria**

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Recovery plans must, to the maximum extent practicable, include "objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions [of section 4 of the Act], that the species be removed from the list."

Recovery plans provide a roadmap for us and our partners on methods of enhancing conservation and minimizing threats to listed species, as well as measurable criteria against which to evaluate progress towards recovery and assess the species' likely future condition. However, they are not regulatory documents and do not substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A decision to revise the status of a species or to delist a species is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and that the species is robust enough

that it no longer meets the definition of an endangered species or a threatened species. In other cases, we may discover new recovery opportunities after having finalized the recovery plan. Parties seeking to conserve the species may use these opportunities instead of methods identified in the recovery plan. Likewise, we may learn new information about the species after we finalize the recovery plan. The new information may change the extent to which existing criteria are appropriate for identifying recovery of the species. The recovery of a species is a dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

On June 29, 1983, the Service completed the first recovery plan for Furbish's lousewort (Service 1983). Following completion of this recovery plan, recovery activities enhanced our understanding about the life-history of the plant and about the populations. This information and the removal of the primary threat to the species at the time of listing (the proposed Dickey-Lincoln hydropower project) led to a revised recovery plan for Furbish's lousewort, which was made final on July 2, 1991 (Service 1991). The revised 1991 recovery plan includes criteria for downlisting Furbish's lousewort from endangered to threatened, but it does not provide delisting criteria due to lack of information regarding the species' long-term population dynamics and viability. The 2019 5-year review (Service 2019a, pp. 2–3) states that, given the revised recovery plan is more than 25 years old, the downlisting criteria are no longer considered adequate; recent population data are not incorporated into the recovery criteria, and the plan lacks recent published and unpublished scientific information on Furbish's lousewort and its habitat. In the 2019 5-year review, we concluded that a change in the species' listing status to threatened is warranted because the Dickey-Lincoln hydropower project is no longer a threat, the species' population rebounded from several severe ice-scour events, the population is widely distributed, and a single catastrophic event is unlikely to extirpate the species.

In September 2019, the Service completed the Recovery Plan for the Furbish's Lousewort (*Pedicularis furbishiae*), Second Revision (Service 2019b), which was developed

using the information used to inform the SSA report for the species (Service 2020). In light of the recommendation to reclassify Furbish's lousewort to a threatened species, the revised recovery plan includes criteria that describe the conditions indicative of a recovered species (delisting criteria). Specifically, the revised recovery plan contains two recovery criteria for delisting based on population status over a period of at least 30 years (three generations). The first criterion states that the metapopulation is viable, comprising a 30-year median of 4,400 flowering stems or greater, and distributed with a 30-year median of 2,800 flowering stems or greater upriver in at least 6 subpopulations with at least 3 good and 3 fair subpopulations, and a 30-year median of 1,600 flowering stems or greater downriver in at least 9 subpopulations with at least 3 good and 6 fair subpopulations. Once the upriver and downriver criteria are reached, the median number of flowering stems for each respective river section will remain stable or increase over a period of at least 30 years without augmentation, reintroduction, or hand-pollinating of plants. Additionally, in New Brunswick, there is a 30-year median of 1,100 plants distributed among at least 5 subpopulations. The second criterion states there is long-term habitat protection for all subpopulations in Maine that provides for the species' needs throughout its life cycle (Service 2019b, pp. 8–9).

Based on the latest census (2018–2019), for criterion 1, the 30-year median for upriver subpopulations is 1,817 flowering stems and 983 for downriver subpopulations. In 2018–2019 there were six subpopulations, five good and one fair, in the upriver region and three subpopulations, one good and two fair, in the downriver region. In 2018–2019, the Maine population increased by 970 flowering stems (43 percent). Canadian subpopulations remain at or below historic lows of about 150 plants at 5 subpopulations, but few plants are flowering. For criterion 2, in 2019, The Maine Chapter of The Nature Conservancy purchased several areas of the St. John River corridor in three upriver townships. Currently, there is long-term habitat protection in 4 of 15 subpopulations. A total of 9.26 miles of 22.89 miles of Furbish's lousewort habitat is protected, mostly in the upriver region.

## **Determination of Furbish's Lousewort Status**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an endangered species as a species “in danger of extinction throughout all or a significant portion of its range,” and a threatened species as a species “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) Overutilization for commercial, recreational, scientific, or educational purposes; (C) Disease or predation; (D) The inadequacy of existing regulatory mechanisms; or (E) Other natural or manmade factors affecting its continued existence.

### *Status Throughout All of Its Range*

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we determined that the Furbish's lousewort no longer meets the definition of an endangered species. This determination is based on the following: the removal of the primary threat at the time of listing, the Dickey-Lincoln hydropower project; the ability of the species to rebound after several severe ice-scouring events; the species continuing to be found at sites beyond its known distribution at the time of the original listing; and more than 25 percent of the overall population being located on protected lands. Additionally, long-term census data demonstrate that the Furbish's lousewort is resilient to stochastic events such as periodic ice scour and flooding. Redundancy in the downriver subpopulations has diminished, though the conditions in the upriver subpopulations have remained constant. Thus, after assessing the best available information, we conclude that the Furbish's lousewort no longer meets the Act's definition of an endangered species. Therefore, we proceed with determining whether Furbish's lousewort meets the Act's definition of a threatened species.

The information indicates that, at the species level, development (Factor A) that causes habitat loss, erosion, and fragmentation and climate change (Factor E) that causes the current trends of warmer winters that affect the ice dynamics, flooding, and the overall disturbance regime of the St. John River are the most influential factors affecting Furbish's lousewort now and into the future. The existing State and Canadian regulations (Factor D) are not considered adequate to alleviate the identified threats. Furbish's lousewort is listed as endangered by the State of Maine; however, the lack of take prohibitions for plants under this law limits its ability to protect the species from the habitat-based threats that it faces. Canada's SARA and New Brunswick's Act have a provision to protect species designated as endangered when found on Federal lands; however, the Furbish's lousewort does not occur on any Federal lands in Canada.

In both future timeframes, 2030 and 2060, under our projected "continuation" and "worst case" scenarios, we predict the species' resiliency, redundancy, and representation to diminish significantly, indicating that the species is likely to become in danger of extinction within the next 40 years. While the downriver subpopulations are predicted to experience the most diminishment, even the current upriver stronghold is predicted to decline, indicating an increased risk of extinction of the entire metapopulation beyond the near term. Furbish's lousewort has a particular niche and appears to have very little adaptation potential. Hence, changes to the ice-scour regime, due to climate change, are highly likely to have significant impacts to the species within the foreseeable future. Under both timeframes analyzed, the downriver subpopulations are predicted to be in poor condition, thereby putting extra importance on the upriver subpopulations to maintain the species' viability. After assessing the best available information, we conclude that Furbish's lousewort is not currently in danger of extinction but is likely to become in danger of extinction within the foreseeable future, throughout all of its range.

#### *Status Throughout a Significant Portion of Its Range*

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a

significant portion of its range. The court in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s Definitions of “Endangered Species” and “Threatened Species” (hereafter “Final Policy”; 79 FR 37578; July 1, 2014) that provided that if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range.

Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species’ range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the “significance” question or the “status” question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species’ range.

Following the court’s holding in *Everson*, we now consider whether there are any significant portions of the species’ range where the species is in danger of extinction now (i.e., endangered). In undertaking this analysis for Furbish’s lousewort, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify portions of the range where the species may be endangered.

The statutory difference between an endangered species and a threatened species is the time horizon in which the species becomes in danger of extinction; an endangered species is in danger of extinction now while a threatened species is not in danger of extinction now but is likely to become so in the foreseeable future. Thus, we considered the time horizon for the threats that are driving the Furbish’s lousewort to warrant listing as a threatened species throughout all of its range. We examined the threats of development and climate change,

including cumulative effects. As stated in the section *Status Throughout All of Its Range* above, we predict the species is likely to become in danger of extinction within the next 40 years. We recognize that the downriver subpopulations are small, and habitat is less extensive and more fragmented. However, the risk of extinction to the population is low and does not currently meet the threshold of endangered. We selected 40 years for the foreseeable future as a period for which we can reasonably project effects of the stressors and potential conservation efforts. The timeframe of 2060 will capture approximately four to five generations of the Furbish's lousewort. We believe this timeframe will allow projection of changes in the condition of the species without increasing uncertainty about the nature and intensity of stressors beyond a reasonable level.

The best scientific and commercial data available indicate that the time horizon on which the threats of development and climate change to Furbish's lousewort and the responses to those threats are likely to occur is the foreseeable future. In addition, the best scientific and commercial data available do not indicate that any threats of development and climate change to Furbish's lousewort and the response to those threats are more immediate in any portions of the species' range. There is evidence showing that, although downriver populations are smaller and more fragmented, these populations have the ability to rebound from declines stemming from catastrophic ice-scour events (Service 2020, p. 4). Therefore, we determine that the Furbish's lousewort is not in danger of extinction now in any portion of its range, but that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This finding does not conflict with the courts' holdings in *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070-74 (N.D. Cal. 2018) and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not need to consider whether any portions are significant and, therefore, did not apply the aspects of the final policy's definition of "significant" that those court decisions held were invalid.

## *Determination of Status*

Our review of the best available scientific and commercial information indicates that Furbish's lousewort meets the definition of a threatened species. Therefore, we finalize downlisting Furbish's lousewort as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

## **II. Final Rule Issued Under Section 4(d) of the Act**

### **Background**

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened. The U.S. Supreme Court has noted that statutory language like "necessary and advisable" demonstrates a large degree of deference to the agency (see *Webster v. Doe*, 486 U.S. 592 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting the prohibitions under section 9.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld rules developed under section 4(d) as a valid exercise of agency authority where they prohibited take of threatened wildlife or include a limited taking prohibition (see *Alsea Valley Alliance v. Lautenbacher*, 2007 U.S. Dist. Lexis 60203 (D. Or. 2007); *Washington*

*Environmental Council v. National Marine Fisheries Service*, 2002 U.S. Dist. Lexis 5432 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana v. Verity*, 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, “once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [she] may choose to forbid both taking and importation but allow the transportation of such species” (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

Exercising this authority under section 4(d), the Service has developed a species-specific 4(d) rule that is designed to address the threats and conservation needs of Furbish’s lousewort. Although the statute does not require the Service to make a “necessary and advisable” finding with respect to the adoption of specific prohibitions under section 9, we find that this rule as a whole satisfies the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of Furbish’s lousewort. As discussed above in the **Determination of Furbish’s Lousewort Status** section, the Service has concluded that Furbish’s lousewort is likely to become in danger of extinction within the foreseeable future primarily due to climate change and development. The provisions of this 4(d) rule promote conservation of Furbish’s lousewort by deterring certain activities that could negatively impact the species in knowing violation of any law or regulation of the State of Maine, including any State trespass laws. The provisions of this 4(d) rule are among the many tools that the Service uses to promote the conservation of Furbish’s lousewort.

#### **Provisions of the 4(d) Rule**

The 4(d) rule provides for the conservation of Furbish’s lousewort by prohibiting the following activities, except as otherwise authorized: Removal and reduction to possession from areas under Federal jurisdiction; malicious damage or destruction on any such area; or removal,

cutting, digging up, or damage or destruction on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law.

While removal and reduction to possession from areas under Federal jurisdiction is not identified as an existing threat to Furbish's lousewort, prohibiting this activity would maintain a deterrent that may become necessary in the future to support recovery of the species (e.g., should a Federal agency seek to conserve a population through land or easement acquisition). As discussed above under **Summary of Biological Status and Threats**, climate change and development are affecting the status of Furbish's lousewort. Indirect effects associated with development, including loss of shade critical to growth and reproduction due to reduction of the forested riparian buffer, and erosion of habitat due to clearing of forested areas and runoff from creation of impermeable surfaces, have the potential to impact Furbish's lousewort. Prohibiting certain activities, when in knowing violation of State law or regulation, would complement State efforts to conserve the species. Providing these protections would help preserve the species' remaining subpopulations; slow its rate of decline; and decrease synergistic, negative effects from other stressors.

We may issue permits to carry out otherwise prohibited activities, including those described above, involving threatened plants under certain circumstances. Regulations governing permits for threatened plants are codified at 50 CFR 17.72, which states that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. That regulation also states that the permit shall be governed by the provisions of § 17.72 unless a special rule applicable to the plant is provided in §§ 17.73 through 17.78. We interpret that second sentence to mean that permits for threatened species are governed by the provisions of § 17.72 unless a species-specific rule provides otherwise. We recently promulgated revisions to § 17.71 providing that § 17.71 will no longer apply to plants listed as threatened in the future. We did not intend for those revisions to limit or alter the applicability of the permitting provisions in § 17.72, or to require that every special rule spell out any permitting provisions that apply to that

species and special rule. To the contrary, we anticipate that permitting provisions would generally be similar or identical for most species, so applying the provisions of § 17.72 unless a species-specific rule provides otherwise would likely avoid substantial duplication. Moreover, this interpretation brings § 17.72 in line with the comparable provision for wildlife at 50 CFR 17.32, in which the second sentence states that such permit shall be governed by the provisions of that section unless a special rule applicable to the wildlife, appearing in §§ 17.40 through 17.48, provides otherwise. Under 50 CFR 17.72 with regard to threatened plants, a permit may be issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for botanical or horticultural exhibition, for educational purposes, or for other purposes consistent with the purposes and policy of the Act. Additional statutory exemptions from the prohibitions are found in sections 9 and 10 of the Act.

The Service recognizes the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and close working relationships with local governments and landowners, are in a unique position to assist the Service in implementing all aspects of the Act. In this regard, section 6 of the Act provides that the Service shall cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, in accordance with 50 CFR 17.71(b), any person who is a qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with the Service in accordance with section (6)(c) of the Act and who is designated by his or her agency for such purposes would be able to conduct activities designed to conserve Furbish's lousewort that may result in otherwise prohibited activities without additional authorization.

Nothing in the 4(d) rule changes in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability of the

Service to enter into partnerships for the management and protection of Furbish's lousewort. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between Federal agencies and the Service.

### **III. Summary of Comments and Recommendations**

#### *Peer Reviewer Comments*

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994), our August 22, 2016, Director's Memo on the Peer Review Process, and the Office of Management and Budget's December 16, 2004, Final Information Quality Bulletin for Peer Review (revised June 2012), we solicited independent scientific reviews of the information contained in the Furbish's lousewort SSA report. We solicited independent peer review of the SSA report by four individuals with expertise in Furbish's lousewort, botany, ice scour and flooding regimes of the St. John River, and landscape ecology; we received comments from three of the four peer reviewers. In addition, we received comments from the State of Maine and Canada.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding Furbish's lousewort. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve the SSA report and final rule. Peer reviewer comments are incorporated into the SSA report and this final rule as appropriate; no significant, substantive issues were identified with our analysis and SSA report.

#### *Public Comments*

In our proposed rule published on January 15, 2021 (86 FR 3976), we requested that all interested parties submit written comments on the proposal by March 16, 2021. We contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. We received one request for a public hearing that was later withdrawn.

During the comment period, we received 10 comments addressing the proposed action. These included comments from one nongovernmental organization and nine individuals. All comments are posted at <https://www.regulations.gov> under Docket No. FWS-R5-ES-2019-0056. We reviewed these comments for substantive issues and new information regarding the proposed rule. A summary of the substantive issues raised in the comments follows:

(1) *Comment:* Several commenters questioned whether the Service should be downlisting a plant species that is pollinated by a single species of bumble bee (the half-black bumble bee [*Bombus vagans*]), when pollinating bumble bees in general are in decline.

*Our Response:* While the Service acknowledges the potential overall decline of pollinating bumble bees, we determined that the half-black bumble bee is currently widely distributed throughout the Maine range of Furbish's lousewort and decline of the half-black bumble bee was not determined to be a threat to Furbish's lousewort (Service 2020, p. 28).

(2) *Comment:* One commenter questioned whether we should downlist Furbish's lousewort given that it would lose the protections of the Endangered Species Act (ESA).

*Our Response:* The Service is responsible for determining not only whether a species warrants listing under the ESA, but also if warranted, which status is the most appropriate. Species with endangered status and those with threatened status are both considered to be federally protected. The statutory difference between an endangered species and a threatened species is the time horizon in which the species becomes in danger of extinction; an endangered species is in danger of extinction now while a threatened species is not in danger of extinction now but is likely to become so in the foreseeable future. Thus, we considered the time horizon for the threats that are driving the Furbish's lousewort to warrant listing and determined that it does not currently meet the threshold of endangered. In addition, with the added provisions of the 4(d) rule outlined above, the species receives much of the same protection it received as an endangered species.

(3) *Comment:* Several commenters questioned whether Furbish's lousewort should be downlisted with the ongoing threats from climate change, highlighting that this species is particularly vulnerable to negative impacts from climate change.

*Our Response:* As is the case for *Comment 2* (above), the Service is responsible for determining the immediacy and magnitude of threats impacting Furbish's lousewort, including the threats from climate change, and then assigning the appropriate listing status, if warranted. The best scientific and commercial data available indicate that the time horizon on which the threats from climate change to Furbish's lousewort and the responses to those threats are likely to occur is the foreseeable future. Therefore, this species meets the Service's definition of a threatened species.

#### **IV. Required Determinations**

##### *National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*), need not be prepared in connection with determining and implementing a species' listing status under the Endangered Species Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244).

##### *Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretary's Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy

ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. There are two federally recognized Tribes in northern Maine; however, no subpopulations of Furbish’s lousewort occur on Tribal lands.

### References Cited

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov> and upon request from the Maine Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

### Authors

The primary authors of this final rule are staff members of the U.S. Fish and Wildlife Service Northeast Regional Office and Maine Ecological Services Field Office.

### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

### Regulation Promulgation

Accordingly, we hereby amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

### PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. In § 17.12, in paragraph (h), amend the List of Endangered and Threatened Plants by revising the entry for “*Pedicularis furbishiae*” under FLOWERING PLANTS to read as follows:

#### § 17.12 Endangered and threatened plants.

\* \* \* \* \*

(h) \* \* \*

Scientific name	Common name	Where listed	Status	Listing citations and
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				<b>applicable rules</b>
FLOWERING PLANTS				
* * * * *				
<i>Pedicularis furbishiae</i>	Furbish's lousewort	Wherever found	T	43 FR 17910, 4/26/1978; 88 FR [INSERT <i>FEDERAL REGISTER</i> PAGE WHERE THE DOCUMENT BEGINS], [INSERT DATE OF PUBLICATION IN THE <i>FEDERAL REGISTER</i> ]; 50 CFR 17.73(d). <sup>4d</sup>
* * * * *				

3. Amend § 17.73 by adding paragraph (d) to read as follows:

**§ 17.73 Special rules—flowering plants.**

\* \* \* \*

(d) *Pedicularis furbishiae* (Furbish's lousewort)—(1) *Prohibitions*. Except as provided under paragraph (d)(2) of this section, you may not remove and reduce to possession the species from areas under Federal jurisdiction; maliciously damage or destroy the species on any such area; or remove, cut, dig up, or damage or destroy the species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law.

(2) *Exceptions from prohibitions*. The following exceptions from the prohibitions apply to this species:

(i) You may conduct activities authorized by permit under § 17.72.

(ii) Qualified employees or agents of the Service or a State conservation agency may conduct activities authorized under § 17.71(b).

\* \* \* \*

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**Martha Williams,**  
*Director,*  
*U.S. Fish and Wildlife Service.*

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